

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

#23
4/15/03

In re Patent Application of

GLENN et al.

Atty. Ref.: 4057-25

Appln. No. 09/311,720

Group Art Unit: 1632

Filed: May 14, 1999

Examiner: J.T. Woitach

FOR: GENETIC IMMUNIZATION BY EPICUTANEOUS APPLICATION

* * *

INFORMATION DISCLOSURE STATEMENT UNDER 37 CFR § 1.97(d)

April 8, 2003

Hon. Commissioner for Patents
Washington, D.C. 20231

Sir:

Further to the Information Disclosure Statement (IDS) of May 24, 2000, attached is a Form PTO-1449 listing the enclosed documents.

This Information Disclosure Statement (IDS) is intended to be in full compliance with the rules, but should the Examiner find any part of its required content to have been omitted, prompt notice to that effect is earnestly solicited, along with additional time

under 37 CFR § 1.97(f), to enable the Applicants to comply fully. In particular, if any of the listed documents are missing or incomplete, please contact the undersigned who will provide another copy.

The Official Fee required under 37 CFR § 1.97(d) is filed herewith. Should that fee be missing or inadequate, please charge the deficiency to our Deposit Account No. 14-1140 referencing matter number 4057-25 for which purpose this paper is submitted in duplicate.

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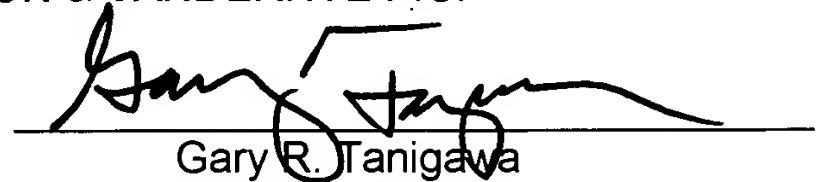
As provided by 37 CFR §§ 1.97(g) and (h), no inference should be made that the foregoing information and the listed references are prior art merely because they have been submitted for consideration. Furthermore, no representation is being made by the Applicants that a search has been conducted or that this statement encompasses all possible material information.

Consideration of the foregoing and enclosures, as well as the return of a copy of the Form PTO-1449 with the Examiner's initials per MPEP § 609, are earnestly solicited. The Examiner is invited to contact the undersigned if further information is needed.

Respectfully submitted,

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INFORMATION DISCLOSURE CITATION

ATTY. DOCKET NO.

APPLN. NO.

4057-25

09/311,720

APPLICANT

GLENN et al.

(Use several sheets if necessary)

FILING DATE

GROUP

May 14, 1999

1632

U.S. PATENT DOCUMENTS

*EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
AR	3,837,340	09/1974	Counter			
BR	3,948,263	04/1976	Drake			
CR	3,964,482	06/1976	Gerstel et al.			
DR	3,982,536	09/1976	Krogseng			
ER	4,196,191	04/1980	Almeida			
FR	4,220,584	09/1980	Limjuco			
GR	4,235,871	11/1980	Papahadjopoulos			
HR	4,285,931	08/1981	Limjuco			
IR	4,394,448	07/1983	Szoka			
JR	4,411,888	10/1983	Klipstein			
KR	4,455,142	06/1984	Martins			
LR	4,484,923	11/1984	Amkraut			
MR	4,497,796	02/1985	Salser			
NR	4,587,044	05/1986	Miller			
OR	4,692,462	09/1987	Banerjee			
PR	4,725,271	02/1988	Korol			
QR	4,732,892	03/1988	Sarpotdar			
RR	4,743,588	05/1988	Mirejovsky			
SR	4,761,372	08/1988	Maas			
TR	4,764,381	08/1988	Bodor			
UR	4,775,361	10/1988	Jacques et al.			
VR	4,783,450	11/1988	Fawzi			
WR	4,834,985	05/1989	Elger			
XR	4,876,278	10/1989	Taylor			
YR	4,877,612	10/1989	Berger			
ZR	4,892,737	01/1990	Bodor			
AAR	4,908,389	03/1990	Mahjour			
BBR	4,917,688	04/1990	Nelson			
CCR	4,917,895	04/1990	Lee			
DDR	4,921,757	05/1990	Wheatley			
EER	4,929,442	05/1990	Powell			
FFR	4,946,853	08/1990	Bannon			
GGR	4,956,171	09/1990	Chang			
HHR	4,960,771	10/1990	Rajadhyaksha			
IIR	4,970,206	11/1990	Alexander			
*Examiner						

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U.S. PATENT DOCUMENTS

*EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
AR	5,270,346	12/1993	Minaskanian			
BR	5,003,987	04/1991	Grinwald			
CR	5,008,050	04/1991	Cullis			
DR	5,008,111	04/1991	Bodor			
ER	5,023,252	06/1991	Hsieh			
FR	5,028,435	07/1991	Katz			
GR	5,030,629	07/1991	Rajadhyaksha			
HR	5,032,402	07/1991	Digenis			
IR	5,041,439	08/1991	Kasting			
JR	5,045,317	09/1991	Chess			
KR	5,049,386	09/1991	Eppstein			
LR	5,049,387	09/1991	Amkraut			
MR	5,059,189	10/1991	Cilento			
NR	5,059,421	10/1991	Loughrey			
OR	5,069,904	12/1991	Masterson			
PR	5,082,866	01/1992	Wong			
QR	5,108,921	04/1992	Low			
RR	5,133,970	07/1992	Petereit et al.			
SR	5,142,044	08/1992	Minaskanian			
TR	5,162,315	11/1992	Rajadhyaksha			
UR	5,164,406	11/1992	Helman			
VR	5,166,320	11/1992	Wu			
WR	5,169,637	12/1982	Lenk			
XR	5,182,109	01/1993	Tamura			
YR	5,182,109 C1	10/2001	Tamura et al.			
ZR	5,196,410	03/1993	Francoeur			
AAR	5,200,393	04/1993	Weiner			
BBR	5,204,339	04/1993	Minaskanian			
CCR	5,215,520	06/1993	Shroot			
DDR	5,225,182	07/1993	Sharma			
EER	5,232,935	08/1993	Colas			
FFR	5,234,959	08/1993	Minaskanian			
GG	5,238,944	08/1993	Wick			
HHR	5,240,846	08/1993	Collins			
IIR	5,250,023	10/1993	Lee et al.			
JJR	5,252,334	10/1993	Chiang			
KKR	5,256,422	10/1993	Albert			
LLR	5,260,066	11/1993	Wood			

*Examiner

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U.S. PATENT DOCUMENTS

*EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
AR	5,270,346	12/1993	Minaskanian			
BR	5,279,544	01/1994	Gross et al.			
CR	5,308,835	05/1994	Clements			
DR	5,326,566	07/1994	Parab			
ER	5,326,790	07/1994	Thornfeldt			
FR	5,328,470	07/1994	Nabel			
GR	5,332,576	07/1994	Mantelle			
HR	5,332,577	07/1994	Gertner			
IR	5,340,588	08/1994	Domb			
JR	5,352,449	10/1994	Beltz			
KR	5,399,346	03/1995	Anderson			
LR	5,411,738	05/1995	Hind			
MR	5,428,132,	06/1995	Hirsch			
NR	5,445,611	08/1995	Eppstein			
OR	5,458,140	10/1995	Eppstein			
PR	5,462,743	10/1995	Turner			
QR	5,464,386	11/1995	Hofmann			
RR	5,472,946	12/1995	Peck			
SR	5,482,965	01/1996	Rajadhyaksha			
TR	5,492,698	02/1996	Von Kleinsorgen			
UR	5,505,956	04/1996	Kim			
VR	5,505,958	04/1996	Bello			
WR	5,533,995	07/1996	Corish			
XR	5,534,260	07/1996	Petersen			
YR	5,536,263	07/1996	Rolf			
ZR	5,540,931	07/1996	Hewitt			
AAR	5,547,932	08/1996	Curiel			
BBR	5,573,778	11/1996	Therriault			
CCR	5,578,475	11/1996	Jessee			
DDR	5,580,859	12/1996	Felgner			
EER	5,589,466	12/1996	Felgner			
FFR	5,593,972	01/1997	Weiner			
GG	5,601,827	02/1997	Collier			
HHR	5,607,691	03/1997	Hale			
IIR	5,612,382	03/1997	Fike			
JJR	5,614,212	03/1997	D'Angelo			
KKR	5,614,503	03/1997	Chaudhary			
LLR	5,620,896	04/1997	Hermann			
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*EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
AR	5,626,866	05/1997	Ebert			
BR	5,643,578	07/1997	Robinson			
CR	5,658,587	08/1997	Santus			
DR	5,661,025	08/1997	Szoka			
ER	5,661,130	08/1997	Meezan			
FR	5,674,503	10/1997	Olafson			
GR	5,676,954	10/1997	Brigham			
HR	5,679,647	10/1997	Carson			
IR	5,686,100	11/1997	Wille			
JR	5,688,523	11/1997	Garbe et al.			
KR	5,693,024	12/1997	Flower			
LR	5,693,622	12/1997	Wolff			
MR	5,695,991	12/1997	Lindholm			
NR	5,697,901	12/1997	Eriksson			
OR	5,698,416	12/1997	Wolf			
PR	5,703,057	12/1997	Johnston			
QR	5,705,151	01/1998	Dow			
RR	5,718,914	02/1998	Foldvari			
SR	5,720,948	02/1998	Brucks			
TR	5,722,397	03/1998	Eppstein			
UR	5,723,114	03/1998	Thornfeldt			
VR	5,731,303	03/1998	Hsieh			
WR	5,733,572	03/1998	Unger			
XR	5,733,762	03/1998	Midoux			
YR	5,736,154	04/1998	Fuisz			
ZR	5,736,392	04/1998	Hawley-Nelson			
AAR	5,736,524	04/1998	Content			
BBR	5,738,647	04/1998	Bernhard			
CCR	5,739,118	04/1998	Carrano			
DDR	5,741,510	04/1998	Rolf			
EER	5,756,117	05/1998	D'Angelo			
FFR	5,760,096	06/1998	Thornfeldt			
GGR	5,766,899	06/1998	Kuo			
HHR	5,770,580	06/1998	Ledley			
IIR	5,773,022	06/1998	Nyqvist-Mayer			
JJR	5,780,050	07/1998	Jain			
KKR	5,783,567	07/1998	Hedley			
LLR	5,789,230	08/1998	Cotton			
*Examiner						

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U.S. PATENT DOCUMENTS

*EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
	AR	5,804,214	09/1998	Wong		
	BR	5,804,566	09/1998	Carson		
	CR	5,811,406	09/1998	Szoka		
	DR	5,814,599	09/1998	Mitragotri		
	ER	5,814,617	09/1998	Hoffman		
	FR	5,824,538	10/1998	Branstrom		
	GR	5,827,703	10/1998	Debs		
	HR	5,827,705	10/1998	Dean		
	IR	5,830,876	11/1998	Weiner		
	JR	5,830,877	11/1998	Carson		
	KR	5,834,010	11/1998	Quan		
	LR	5,837,289	11/1998	Grasela		
	MR	5,837,533	11/1998	Boutin		
	NR	5,840,059	11/1998	March		
	OR	5,843,913	12/1998	Li		
	PR	5,844,103	12/1998	Hanson		
	QR	5,846,540	12/1998	Restifo		
	RR	5,846,949	12/1998	Wagner		
	SR	5,849,719	12/1998	Carson		
	TR	5,853,751	12/1998	Masiz		
	UR	5,856,187	01/1999	Restifo		
	VR	5,858,784	01/1999	Debs		
	WR	5,866,553	02/1999	Donnelly		
	XR	5,877,159	03/1999	Powell		
	YR	5,877,302	03/1999	Hanson		
	ZR	5,879,326	03/1999	Godshall et al.		
	AAR	5,885,971	03/1999	German		
	BBR	5,910,306	06/1999	Alving		
	CCR	5,910,488	06/1999	Nabel		
	DDR	5,914,114	06/1999	Cassels		
	EER	5,916,879	06/1999	Webster		
	FFR	5,935,838	08/1999	Askeloef		
	GGR	5,961,979	10/1999	Srivastava		
	HHR	5,980,898	11/1999	Glenn		
	IIR	5,985,847	11/1999	Carson		
	JJR	5,993,849	11/1999	Assmus et al.		
	KKR	5,993,852	11/1999	Foldvari et al.		
*Examiner						

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1632

U.S. PATENT DOCUMENTS

*EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
AR	6,008,200	12/1999	Krieg			
BR	6,019,982	02/2000	Clements et al.			
CR	6,022,316	02/2000	Eppstein et al.			
DR	6,033,673	03/2000	Clements			
ER	6,033,684	03/2000	Norcia			
FR	6,039,969	03/2000	Tomai			
GR	6,063,399	05/2000	Assmus et al.			
HR	6,087,341	07/2000	Khavari			
IR	6,090,790	07/2000	Eriksson			
JR	6,142,939	11/2000	Eppstein et al.			
KR	6,149,919	11/2000	Domenighini et al.			
LR	6,165,458	12/2000	Foldvari et al.			
MR	6,165,500	12/2000	Cevc			
NR	6,173,202	01/2001	Eppstein			
OR	6,180,136	01/2001	Larson			
PR	6,183,434	02/2001	Eppstein			
QR	6,190,367	02/2001	Hall			
RR	6,190,689	02/2001	Hoffmann et al.			
SR	6,207,184	03/2001	Ikeda et al.			
TR	6,210,672	04/2001	Cowing			
UR	6,256,533	07/2001	Yuzhakov et al.			
VR	6,290,991	09/2001	Roser et al.			
WR	6,312,612	11/2001	Sherman et al.			
XR	6,331,266	12/2001	Powell et al.			
YR	6,331,310	12/2001	Roser et al.			
ZR	6,334,856	01/2002	Allen et al.			
AAR	6,348,212	02/2002	Hymes et al.			
BBR	6,348,450	02/2002	Tang et al.			
CCR	6,365,178	04/2002	Venkateshwaran et al.			
DDR	6,379,324	04/2002	Gartstein et al.			
EER	6,400,096	08/2002	Lastovich et al.			
FFR	6,406,705	06/2002	Davis et al.			
GGR	6,413,523	07/2002	Clements			
HHR	6,440,096	08/2002	Lastovich et al.			
IIR	6,451,240	09/2002	Sherman et al.			
JJR	6,454,755	09/2002	Godshall			
KKR	6,471,903	10/2002	Sherman et al.			

*Examiner

**INFORMATION DISCLOSURE
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U.S. PATENT DOCUMENTS

*EXAMINE R INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE

FOREIGN PATENT DOCUMENTS

		DOCUMENT	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
							YES	NO
	AR	AU 47099/89 ✓	06/1990	AU				
	BR	EP 0 891 770 ✓	01/1999	EP				
	CR	WO 92/03122 ✓	03/1992	WIPO				
	DR	WO 94/21230 ✓	09/1994	WIPO				
	ER	WO 95/17211 ✓	06/1995	WIPO				
	FR	WO 96/14855 ✓	05/1996	WIPO				
	GR	WO 96/25190 ✓	08/1996	WIPO				
	HR	WO 96/06627 ✓	03/1996	WIPO				
	IR	WO 96/19976 ✓	04/1996	WIPO				
	JR	WO 97/04832 ✓	02/1997	WIPO				
	KR	WO 97/07734 ✓	03/1997	WIPO				
	LR	WO 97/24447 ✓	07/1997	WIPO				
	MR	WO 97/31119 ✓	08/1997	WIPO				
	NR	WO 97/35957 ✓	10/1997	WIPO				
	OR	WO 98/00193 ✓	01/1998	WIPO				
	PR	WO 98/29134 ✓	07/1998	WIPO				
	QR	WO 98/01538 ✓	01/1998	WIPO				
	RR	WO 98/10750 ✓	03/1998	WIPO				
	SR	WO 98/20734 ✓	05/1998	WIPO				
	TR	WO 98/42375 ✓	10/1998	WIPO				
	UR	WO 98/46208 ✓	10/1998	WIPO				
	VR	WO 99/04009 ✓	01/1999	WIPO				
	WR	WO 99/08689 ✓	02/1999	WIPO				
	XR	WO 99/08713 ✓	02/1999	WIPO				
	YR	WO 99/41366 ✓	08/1999	WIPO				
	ZR	WO 99/43350 ✓	09/1999	WIPO				
	AAR	WO 99/53960 ✓	10/1999	WIPO				
	BBR	WO 99/60167 ✓	11/1999	WIPO				
	CCR	WO 99/62537 ✓	12/1999	WIPO				
	DDR	WO 99/13915 ✓	03/1999	WIPO				
	EER	WO 99/26662 ✓	06/1999	WIPO				
	FFR	WO 99/61078 ✓	12/1999	WIPO				
	GGR	WO 99/47164 ✓	09/1999	WIPO				
	HHR	WO 99/47165 ✓	09/1999	WIPO				
	IIR	WO 99/47167 ✓	09/1999	WIPO				

*Examiner

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FOREIGN PATENT DOCUMENTS

		DOCUMENT	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
							YES	NO
	AR	WO 00/44349	08/2000	WIPO				
	BR	WO 00/61184	10/2000	WIPO				
	CR	WO 00/33812	06/2000	WIPO				
	DR	WO 00/74714	12/2000	WIPO				
	ER	WO 00/74763	12/2000	WIPO				
	FR	WO 00/74763 A3	12/2000	WIPO				
	GR	WO 00/74766	12/2000	WIPO				
	HR	WO 01/34185	05/2001	WIPO				
	IR	WO 01/090758	11/2001	WIPO				
	JR	WO 02/02179	01/2002	WIPO				
	KR	WO 02/05889	01/2002	WIPO				
	LR	WO 02/07813	01/2002	WIPO				
	MR	WO 02/064162	08/2002	WIPO				
	NR	WO 02/064193	08/2002	WIPO				
	OR	WO 02/74244	09/2002	WIPO				
	PR	WO 02/02178	01/2002	WIPO				

OTHER DOCUMENTS (including Author, Title, Date, Pertinent pages, etc.)

		Alving "Effectiveness of liposomes as potential carriers of vaccines: Applications to cholera toxin and human malaria sporozoite antigen" Vaccine 4:166-172 (1986)
		Alving "Liposomes as carriers of antigens and adjuvants" J. Immunol. Methods 140:1-13 (1991)
		Alving "Lipopolysaccharide, lipid A, and liposomes containing lipid A as immunologic adjuvants" Immunobiology 187: 430-446 (1993)
		Alving "Novel adjuvant strategies for experimental malaria and AIDS vaccines" Ann. NY Acad. Sci. 690:265-275 (1993)
		Alving "The preparation and use of liposomes in immunological studies" In: <i>Liposome Technology</i> , CRC Press 3:317-343 (1993)
		Alving "Cytotoxic T lymphocytes induced by liposomal antigens: Mechanisms of immunological presentation" AIDS Res Hum Retroviruses 10 suppl 2 S91-S94 (1994)
		Alving "Liposomes as carriers of peptide antigens: induction of antibodies and cytotoxic T lymphocytes to conjugated and unconjugated peptides" Immunol Rev 145:5-31 (1995)
	QR	Allison "Hydrogen bonding between sugar and protein is responsible for inhibition of dehydration-induced protein unfolding" Arch. Biochem. Biophys. 365:289-298 (1999)
	RR	Allison "Optimization of storage stability of lyophilized actin using combinations of disaccharides and dextran" J. Pharm. Sci. 89:199-214 (2000)
	SR	Andya "The effect of formulation excipients on protein stability and aerosol performance of spray-dried powders of a recombinant humanized anti-IgE monoclonal antibody" Pharm. Res. 16:350-358(1999)
	TR	Arakawa "Protein-solvent interactions in pharmaceutical formulations" Pharma. Res. 8:285-291 (1991)
	UR	Arany "Correlation between pretreatment levels of interferon response genes and clinical responses to an immune response modifier (imiquimod) in genital warts" Antimicrob Agents Chemother 44:1869-1873 (2000)

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FOREIGN PATENT DOCUMENTS

DOCUMENT	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION YES NO

OTHER DOCUMENTS (INCLUDING AUTHOR, TITLE, DATE, PERTINENT PAGES, ETC.)

[lsp11]	AR	Becker "Dengue fever virus and Japanese encephalitis virus synthetic peptides, with motifs to fit HLA class I haplotypes prevalent in human populations in endemic regions, can be used for application to skin Langerhans cells to prime antiviral CD8 cytotoxic T cells (CTLs) - A novel approach to the protection of humans" Virus Genes 9:33-45 (1994) ✓
	BR	Becker "An analysis of the role of skin Langerhans cells (LC) in the cytoplasmic processing of HIV-1 peptides after "Peplotion" transepidermal transfer and HLA class I presentation to CD8 CTLs - An approach to immunization of humans" Virus Genes 9:133-147 (1994) ✓
	CR	Becker "Mechanism in allergic contact dermatitis" Exp. Dermatol. 2:63-69 (1993)
	DR	Birch "Trehaloses" Adv. Carb. Chem. Biochem. 18:201-2225 (1993)
	ER	Blauvelt "Human Langerhans cells express E-cadherin" J. Invest. Dermatol. 104:293-296 (1995)
	FR	Bos "The 500 dalton rule for the skin penetration of chemical compounds and drugs" Exp. Dermatol. 9:165-169 (2000)
	GR	Bovsun "DNA vaccine rubbed on skin provokes immune response" Biotechnol Newswatch pp. 4 (September 20, 1999)
	HR	Bowen "Cholera toxin acts as a potent adjuvant for the induction of cytotoxic T-lymphocyte responses with non-replicating antigens" Immunol. 81:338-342 (1994)
	IR	Buates "Treatment of experimental Leishmaniasis with the immunomodulators imiquimod and S-28463: Efficacy and mode of action" J Infect Dis 179:1485-1494 (1999)
	JR	Castle "Clinical relevance of age-related immune dysfunction" Clin. Infect. Dis. 31:578-585 (2000) ✓
	KR	Chen "Adjuvation of epidermal powder immunization" Vaccine 19:2908-2917 (2001) ✓
	LR	Chen "Serum and mucosal immune responses to an inactivated influenza virus vaccine induced by epidermal powder immunization" J Virol 75:7956-7965 (2001) ✓
	MR	Chen "Induction of systemic immune responses in sheep by topical application of cholera toxin to skin" Vet Immunol Immunopathol 77:191-199 (2000)
	NR	Chin "Antibody response against Pseudomonas aeruginosa membrane proteins in experimentally infected sheep" Vet. Microbiol. 43:21-32 (1995)
	OR	Chin "Manipulating systemic and mucosal immune responses with skin-deliverable adjuvants" J. Biotechnol. 44:13-19 (1996)
	PR	Condon "DNA-based immunization by in vivo transfection of dendritic cells" Nature Med. 2:1122-1128 (1996)
	QR	Costantino "Effect of excipients on the stability and structure of lyophilized recombinant human growth hormone" J. Pharm. Sci. 87:1412-1420 (1998)
	RR	Craig "Cutaneous responses to cholera skin toxin in man. I. Responses in unimmunized American males" J. Infect. Dis. 125:203-215 (1972)
	SR	De Haan "Liposomes as an immunoadjuvant system for stimulation of mucosal and systemic antibody responses against inactivated measles virus administered intranasally to mice" Vaccine 13:1320-1324 (1995)
	TR	Egbaria "Liposomes as topical drug delivery system" Adv Drug Delivery Rev 5:287-300 (1990)

*Examiner

INFORMATION DISCLOSURE CITATION		ATTY. DOCKET NO. 4057-25	APPLN. NO. 09/311,720
		APPLICANT GLENN et al.	
(Use several sheets if necessary)		FILING DATE May 14, 1999	GROUP 1632
OTHER DOCUMENTS (including Author, Title, Date, Pertinent pages, etc.)			
[IsP13]	AR	El-Ghorr "Transcutaneous immunisation with herpes simplex virus stimulates immunity in mice" FEMS Immunol Med Micro 29:255-261 (2000) ✓	
	BR	Enk "An essential role for Langerhans cell-derived IL-1 beta in the initiation of primary immune responses in skin" J Immunol 151:2390-2398 (1993)	
	CR	Fan "Immunization via hair follicles by topical application of naked DNA to normal skin" Nature Biotechnol 17:870-872 (1999)	
	DR	Fleisher "Topical delivery of growth hormone releasing peptide using liposomal systems: An in vitro study using hairless mouse skin" Life-Sci-57:1293-1297 (1995)	
	ER	Frank "Long-term stabilization of biologicals" Bio/Technology 12:253-256 (1994)	
	FR	Feng et al. "P55, an immunogenic but nonprotective 55-kilodalton <i>borrelia burgdorferi</i> protein in murine lyme disease" Infection and Immunity 64:363-365 (1996) ✓	
	GR	Gekko "Mechanism of protein stabilization by glycerol: Preferential hydration in glycerol-water mixtures" Biochemistry 20:4667-4676 (1981)	
	HR	Glenn "Murine IgG subclass antibodies to antigens incorporated in liposomes containing lipid A" Immunol Lett 47:73-78 (1995)	
	IR	Glenn "Skin immunization made possible by cholera toxin" Nature 391:851 (1998)	
	JR	Glenn "Transcutaneous immunization with cholera toxin protects mice against lethal mucosal toxin challenge" J Immunol 161:3211-3214 (1998)	
	KR	Glenn "Transcutaneous immunization with bacterial ADP-ribosylating exotoxins as antigens and adjuvants" Infect Immun 67:1100-1106 (1999)	
	LR	Glenn "Transcutaneous immunisation" Exp Opin Invest Drugs 8:797-805 (1999)	
	MR	Glenn "Transcutaneous immunization" In: <i>The Jordan Report</i> , NIAID, pp. 91-93 (2000)	
	NR	Glenn "Transcutaneous immunization: A human vaccine delivery strategy using a patch" Nature Med 6:1403-1406 (2000)	
	OR	Glenn "Transcutaneous immunization" In: <i>Vaccine Adjuvants</i> , Humana Press pp. 315-326 (2000)	
	PR	Glenn "Transcutaneous immunization" In: <i>New Vaccine Technologies</i> , Landes Biosciences pp. 292-304 (2001)	
	QR	Glueck "Safety and immunogenicity of intranasally administered inactivated trivalent virosome-formulated influenza vaccine <i>Escherichia coli</i> heat-labile toxin as a mucosal adjuvant" J Infect Dis 181:1129-1132 (2000) ✓	
	RR	Gockel "Transcutaneous immunization induces mucosal and systemic immunity: A potent method for targeting immunity to the female reproductive tract" Mol Immunol 37:537-544 (2000) ✓	
	SR	Goodnow "Chance encounters and organized rendezvous" Immunol Rev 156:5-10 (1997)	
	TR	Gupta "Adjuvants for human vaccines – current status, problems and future prospects" Vaccine 13:1263-1276 (1995)	
	UR	Hagiwar "Effectiveness and safety of mutant <i>Escherichia coli</i> heat-labile enterotoxin (LT H44A) as an adjuvant for nasal influenza vaccine" Vaccine 19:2071-2079 (2001) ✓	
	VR	Hagiwara "Effects of intranasal administration of cholera toxin (or <i>Escherichia coli</i> heat-labile enterotoxin) B subunits supplemented with a trace amount of the holotoxin on the brain" Vaccine 19:1652-1660 (2001) ✓	
*Examiner			

INFORMATION DISCLOSURE CITATION		ATTY. DOCKET NO. 4057-25	APPLN. NO. 09/311,720
		APPLICANT GLENN et al.	
(Use several sheets if necessary)		FILING DATE May 14, 1999	GROUP 1632
OTHER DOCUMENTS (including Author, Title, Date, Pertinent pages, etc.)			
[IsP15]	AR	Hammond "Transcutaneous immunization of domestic animals: Opportunities and challenges" Adv Drug Delivery Rev 43:45-55 (2000)	
	BR	Hammond "Transcutaneous immunization: T cell responses and boosting of existing immunity" Vaccine 19:2701-2707 (2001)	
	CR	Hanson "Introduction to formulation of protein pharmaceuticals" In: <i>Stability of Protein Pharmaceuticals</i> , Plenum pp. 209-233 (1992)	
	DR	Hioe "Comparison of adjuvant formulations of cytotoxic T cell induction using synthetic peptides" Vaccine 14:412-418 (1996)	
	ER	Hoelzle "Increased accumulation of trehalose in rhizobia cultured under 1% oxygen" Appl Environ Microbiol 56:3213-3215 (1990)	
	FR	Hsiung <i>Diagnostic Virology 3rd Ed.</i> , Yale Univ. Press pp. 29-34 (1982)	
	GR	Iizuka "Two simple methods for the evaluation of topically active anti-inflammatory steroidal ointments" Agents Actions 11:254-259 (1981)	
	HR	Izutsu "Increased stabilizing effects of amphiphilic excipients on freeze-drying of lactate dehydrogenase (LDH) by dispersion into sugar matrices" Pharm Res 12:838-843 (1995)	
	IR	Janeway et al. "The immune system in health and disease" Immunobiology 10:28-29 (1994)	
	JR	Kahan "Immunosuppressive therapy" Current Opin Immunol 4:553-560 (1992)	
	KR	Kato "Acute cutaneous barrier perturbation induces maturation of Langerhans' cells in hairless mice" Acta Derm Venereol (Stockh) 77:365-369 (1997)	
	LR	Knop "Cellular and molecular mechanisms in the induction phase of contact sensitivity" Intl Arch Allergy Immunol 107:231-232 (1995)	
	MR	Korting "Topical liposome drugs to come: what the patent literature tells us" J Am Acad Dermatol 25:1068-1071 (1991)	
	NR	Korting "Interaction of liposomes with human epidermis reconstructed in vitro" Br J Dermatol 132:571-579 (1995)	
	OR	Kosecka "Pertussis toxin stimulates hypersensitivity and enhances nerve-mediated antigen uptake in rat intestines" Am J Physiol 267:G745-G752 (1994)	
	PR	Kumamoto "Induction of tumor-specific protective immunity by <i>in situ</i> Langerhans cell vaccine" Nature Biotech 20:64-69 (2002)	
	QR	Lane "In vitro-evaluation of human lymphocyte function" In: <i>Handbook of Experimental Immunology 4th Ed.</i> , vol. 2, Blackwell pp. 66.5-66.7 (1986)	
	RR	Liu "Topical application of HIV DNA vaccine with cytokine-expression plasmids induces strong antigen-specific immune responses" Vaccine 20:42-48 (2002)	
	SR	Lu "Mutant <i>Escherichia coli</i> heat-labile enterotoxin [LT(R192G)] enhances protective humoral and cellular immune responses to orally administered inactivated influenza vaccine" Vaccine 20:1019-1029 (2002)	
	TR	Luo "Synthetic DNA delivery systems" Nature Biotechnol 18:33-37 (2000)	
*Examiner			TR

INFORMATION DISCLOSURE CITATION		ATTY. DOCKET NO. 4057-25	APPLN. NO. 09/311,720
(Use several sheets if necessary)		APPLICANT GLENN et al.	
		FILING DATE May 14, 1999	GROUP 1632
OTHER DOCUMENTS (including Author, Title, Date, Pertinent pages, etc.)			
[lsp17]	AR	Mahmoud "Parasitic protozoa and helminths: Biological and immunological challenges" Science 246:1015-1022 (1989)	
	BR	Marinaro "Mucosal effect of cholera toxin in mice results from induction of T helper 2 (Th2) cells and IL-4" J Immunol 155:4621-4629 (1995)	
	CR	McCluskie "Route and method of delivery of DNA vaccine influence immune responses in mice and non-human primates" Mol Med 5:287-300 (1999) ✓	
	DR	Mengiardi "Virosomes as carriers for combined vaccines" Vaccine 13:1306-1315 (1995)	
	ER	Mezei "Liposomes – a selective drug delivery system for the topical route of administration. Lotion dosage form" Life Sci 26:1473-1477 (1980)	
	FR	Moghimi "Current progress and future prospects of liposomes in dermal drug delivery" J Microencapsul 10:155-162 (1993)	
	GR	Murphy et al. "Antigen-induced protective and nonprotective cell-mediated immune components against <i>cryptococcus neoformans</i> " Infection and Immunity 66:2632-2639 (1998) ✓	
	HR	Nashar et al. "Potent immunogenicity of the B subunits of <i>Escherichia coli</i> heat-labile enterotoxin: Receptor binding is essential and induces differential modulation of lymphocyte subsets" Proc. Natl. Acad. Sci. USA 93:226-230 (1996) ✓	
	IR	Norimatsu "Effects of aluminum adjuvant on systemic reactions of lipopolysaccharides in swine" Vaccine 13:1325-1329 (1995)	
	JR	Ockenhouse "Sequesterin, a CD36 recognition protein on <i>Plasmodium falciparum</i> malaria-infected erythrocytes identified by anti-idiotypic antibodies" Proc Natl Acad Sci USA 88:3175-3179 (1991) ✓	
	KR	Ogra et al. "Vaccination strategies for mucosal immune responses" Clin. Microbiol. Rev. 14:430-445 (2001) ✓	
	LR	Paul "Transdermal immunization with large proteins by means of ultradeformable drug carriers" Eur J Immunol 25:3521-3524 (1995)	
	MR	Paul "Noninvasive administration of protein antigens: Transdermal immunization with bovine serum albumin in transferosomes" Vaccine Res 4:145-164 (1995)	
	NR	Peters "Dendritic cells: From ontogenetic orphans to myelo-monocytic descendants" Immunol Today 17:273-278 (1996)	
	OR	Podda "The adjuvanted influenza vaccines with novel adjuvants: Experience with the MF59-adjuvanted vaccine" Vaccine 19:2673-2680 (2001) ✓	
	PR	Powers "In previously immunized elderly adults inactivated influenza A (H1N1) virus vaccines induce poor antibody responses that are not enhanced by liposome adjuvant" Vaccine 13:1330-1335 (1995)	
	QR	Ranade "Drug delivery systems. 6. Transdermal drug delivery" J Clin Pharmacol 31:401-418 (1991)	
	RR	Rao "Intracellular processing of liposome-encapsulated antigens by macrophages depends upon the antigen" Infect Immun 63:2396-2402 (1995)	
	SR	Sanchez "Formulation strategies for the stabilization of tetanus toxoid in poly(lactide-co-glycolide) microspheres" Intl J Pharm 185:255-266 (1999)	
	TR	Sauzet "Long-lasting anti-viral cytotoxic T lymphocytes induced in vivo with chimeric-multirestricted lipopeptides" Vaccine 13:1339-1345 (1995)	
	UR	Schaefer-Korting "Liposome preparations: A step forward in topical drug therapy for skin disease?" J Am Acad Dermatol 21:1271-1275 (1989)	
	VR	Scharton-Kersten "Principles of transcutaneous immunization using cholera toxin as an adjuvant" Vaccine 17 suppl 2:S37-S43 (1999)	
	WR	Scharton-Kersten "Transcutaneous immunization with bacterial ADP-ribosylating exotoxins, subunits, and unrelated adjuvants" Infect Immun 68:5306-5313 (2000)	
*Examiner			

INFORMATION DISCLOSURE CITATION	ATTY. DOCKET NO.	APPLN. NO.
	4057-25	09/311,720
(Use several sheets if necessary)	APPLICANT	
	GLENN et al.	
	FILING DATE	GROUP
	May 14, 1999	1632

U.S. PATENT DOCUMENTS

*EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE

FOREIGN PATENT DOCUMENTS

DOCUMENT	DATE	COUNTRY	CLASS	SUBCLAS	TRANSLATION	
					YES	NO

OTHER DOCUMENTS (including Author, Title, Date, Pertinent pages, etc.)

[Is19]	AR	Schmitt "Bacterial toxins: Friends or foes" Emerging Infect Dis 5:224-234 (1999)
	BR	Schwarzenberger "Contact allergens and epidermal proinflammatory cytokines modulate Langerhans cell E-cadherin expression in situ" J Invest Dermatol 106:553-558 (1996)
	CR	Seo "Percutaneous peptide immunization via corneum barrier-disrupted murine skin for experimental tumor immunoprophylaxis" Proc Natl Acad Sci USA 97:371-376 (2000)
	DR	Small, In: <i>Handbook of Lipid Research</i> , Plenum, 4:43-87 and 89-96
	ER	Stacey "Macrophages ingest and are activated by bacterial DNA" J Immunol 157:2116-2122 (1996)
	FR	Steinman "Dendritic cells in the T-cell areas of lymphoid organs" Immunol Rev 156:25-37 (1997)
	GR	Stingl "The immune functions of epidermal cells" Immunol Ser 46:3-72 (1989)
	HR	Suzuki "Imiquimod, a topical immune response modifier, induces migration of Langerhans cells" J Invest Dermatol 114:135-141 (2000)
	IR	Takigawa "Percutaneous peptide immunization via corneum barrier-disrupted murine skin for experimental tumor immunoprophylaxis" Ann NY Acad Sci 941:139-146 (2001) ✓
	JR	Tang Vaccination onto bare skin" Nature 388:729-730 (1997)
	KR	"Tuberculin, Purified Protein Derivative, Tine Test" Physician's Desk Reference, 3 pages (2001) ✓
	LR	Udey "Cadherins and Langerhans cell immunobiology" Clin Exp Immunol 107 suppl 1:6-8 (1997)
	MR	Vassell "Activation of Langerhans cells following transcutaneous immunization" 13 FASEB J A633 (1999)
	NR	Verma "Phagocytosis of liposomes by macrophages: intracellular fate of liposomal malaria antigen" Biochim Biophys Acta 1066:229-238 (1991)
	OR	Verma "Adjuvant effects of liposomes containing lipid A: enhancement of liposomal antigen presentation and recruitment of macrophages" Infect Immun 60:2438-2444 (1992)
	PR	Vutla "Transdermal iontophoretic delivery of enkephalin formulated in liposomes" J Pharm Sci 85:5-8 (1996)
	QR	Walker "The role of percutaneous penetration enhancers" Adv Drug Delivery Rev 18:295-301 (1996)
	RR	Wang "Induction of protective polyclonal antibodies by immunization with a Plasmodium yoelii circumsporozoite protein multiple antigen peptide vaccine" J Immunol 154:2784-2793 (1995)
	SR	Wang "Epicutaneous exposure of protein antigen induces a predominant Th2-like response with high IgE production in mice" J Immunol 156:4077-4082 (1996)
	TR	Wassef "Liposomes as carriers for vaccines" Immunomethods 4:217-222 (1994)
	UR	Watabe "Protection against influenza virus challenge by topical application of influenza DNA vaccine" Vaccine 19:4434-4444 (2001) ✓

*Examiner			
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